

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

IMPULSE TECHNOLOGY LTD.,

Plaintiff;

v.

MICROSOFT CORPORATION, et al,

Defendants.

Civil Action No. 11-586-RGA

MEMORANDUM

I have two Reports and Recommendations before me. (D.I. 409, 411). Plaintiff filed objections. (D.I. 412). Defendants responded. (D.I. 415).

The Magistrate Judge earlier did claim construction of ten disputed terms. (D.I. 300 at 4). After Defendants filed objections to two of the constructions, I adopted the recommended claim constructions, with some comment on the two constructions to which Defendants objected. (D.I. 314). Those two constructions are not presently at issue.

The Magistrate Judge's main Report and Recommendation (D.I. 409) is lengthy. Familiarity with it is presumed. The Magistrate Judge recommended Defendants' Motion for Summary Judgment of Noninfringement (D.I. 332) be granted as to fourteen of the fifteen asserted claims. (D.I. 411 at 1 & 2). The Magistrate Judge recommended that Defendants' Motion for Partial Summary Judgment of Invalidity be denied. (D.I. 409 at 42). Since no objections were filed to the Magistrate Judge's recommendation with respect to summary judgment of invalidity, I will adopt the Report and Recommendation (D.I. 409) on invalidity. The Motion for Partial Summary Judgment of Invalidity (D.I. 330) is **DENIED**.

On infringement, Plaintiff argues that the Magistrate Judge used an incorrect claim construction of “defined physical space.” Plaintiff further argues that under the “actual claim construction” of “defined physical space,” there are issues of fact that preclude a finding of non-infringement both literally and under the doctrine of equivalents. Plaintiff appears to concede that if the Magistrate Judge’s claim construction as applied in the Report and Recommendation is correct, then there is no literal infringement, but argues that there would still be infringement under the doctrine of equivalents. (D.I. 412 at 10).

The construction of “defined physical space” is “indoor or outdoor space having size and/or boundaries known prior to the adaptation of the testing and training system.” (D.I. 300 at 19). In other words, the patent claims, *e.g.*, systems that are set up in relation to a particular physical space (for example, in a gym or on a field) so that the system can “assess[] and quantify[] distance and time measurements relevant to the player’s conditioning, sport and ability.” ’565 patent, col. 9, ll. 9-12. Working with this “defined physical space,” the system can be adapted to produce the desired results. The accused product, by contrast, has a “sensor view.” Whatever the sensor views is what it tests and trains. Stated another way, the patent claims a system that adapts to the real world. The accused product does not adapt to the real world. Instead, it has “hardcoded values” that will define a space in relation to the position of the sensor. This might be a defined relational space, but it is not a defined physical space. This is the issue that the Magistrate Judge resolved by claim construction. (D.I. 300 at 16). Thus, the accused product does not literally meet the “defined physical space” limitation, and therefore does not literally infringe the fourteen asserted claims that contain that limitation.

I reject Plaintiff’s arguments that new requirements were added to the “defined physical space” limitation. (D.I. 412 at 5). On the “size and/or boundaries” limitation, the Claim

Construction Report and Recommendation explained the meaning of “and/or” was to take into account the possibility that an outdoor physical space would have no vertical boundary. (D.I. 300 at 16). It was not suggesting that by virtue of the “and/or” conjunctive, the system could define a space with either a known size or a known set of boundaries that would constitute a “defined physical space.” . On the “‘real-world’ coordinates” argument, the Report indeed states that the “defined physical space” needs to have a “real-world location” (D.I. 409 at 10), but that is essentially the same as saying it has to be an “indoor or outdoor space having size and/or boundaries.” On the argument that the Magistrate Judge required that the space must be known in advance to be either indoors or outdoors, that is not a fair reading of the Report. The claims are indifferent as to whether the space is indoors or outdoors. They do, however, require that the space exist in the physical world (either indoors or outdoors) as opposed to the non-physical (or “abstract,” as the Magistrate Judge called it) world. The last argument, that the boundaries cannot be defined relative to the sensor, is the argument the Magistrate Judge rejected during claim construction.

I also consider the doctrine of equivalents. The issue for the doctrine of equivalents is whether an “indoor or outdoor space having size and/or boundaries known prior to the adaptation of the testing and training system” (D.I. 300 at 19) is not substantially different than a “subset[of the sensor viewing] area whose boundaries and size are known in advance of placing and positioning the sensor.” (D.I. 336-7 at 7, ¶ 10).

The Magistrate Judge noted, “Dr. Sacerdoti [Plaintiff’s expert] focuses on a comparison between coordinate systems using different reference points.” (D.I. 409 at 12). The Magistrate Judge described this as not being the proper comparison: “[T]he question is not whether a coordinate system defined in relation to a sensor is equivalent to a coordinate system defined

with reference to some other point.” (*Id.*). Rather, “the relevant comparison for purposes of invoking the doctrine of equivalents is whether a coordinate system defined relative to the sensor is equivalent to the real-world physical space required by the claims.” (*Id.* at 13). The Magistrate Judge concluded that the expert’s opinion was not a limitation-by-limitation analysis of the sort required by case law. (*Id.*).

In the alternative, the Magistrate Judge found that the “doctrine of vitiation” applied. (*Id.*). Most of the time, the “doctrine of vitiation” is just an obscure way of applying the “judgment as a matter of law” standard to doctrine of equivalents cases. That is, the “doctrine of vitiation” is a determination that, as a matter of law, the evidence in support of application of the doctrine of equivalents is insufficient to create a triable issue of fact. *Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1356 (Fed. Cir. 2012). The “doctrine of vitiation” “‘is nothing more than a conclusion that the evidence is such that no reasonable jury could conclude that an element of an accused device is equivalent to an element called for in the claim, or that the theory of equivalence to support the conclusion of infringement otherwise lacks legal sufficiency.’” *Cadence Pharm. Inc. v. Exela Pharmsci Inc.*, 780 F.3d 1364, 1371 (Fed. Cir. 2015) (quoting *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1018-19 (Fed. Cir. 2006)).

Lurking in the *Cadence/DePuy Spine* formulation, however, is a second strand of the “doctrine of vitiation.” I think I can glean some idea of what is meant by “the theory of equivalence . . . otherwise lacks legal sufficiency” from the relevant case law. In *Abbott Labs v. Andrx Pharm., Inc.*, the Federal Circuit appeared to accept that there could be a sufficient showing of “factual equivalence” on the basis of the “function-way-result” test, and, at the same time, an insufficient showing of “legal sufficiency.” 473 F.3d 1196, 1212 (Fed. Cir. 2007). Perhaps the origin of this problem is that there are two “tests” for determining equivalents: (1)

the “insubstantial differences” test, and (2) the “function-way-result” test. In my experience, those alleging infringement usually proceed with the “function-way-result” test, probably because it is (in practice, at least) a much more flexible and broader tool for alleging infringement. It seems to me that the “doctrine of vitiation” can be essentially the application of the “insubstantial differences” test to limit the “function-way-result” test. *See Trading Technologies Int’l, Inc. v. eSpeed, Inc.*, 595 F.3d 1340, 1355 (Fed. Cir. 2010) (“Claim vitiation applies when there is a ‘clear, substantial difference or a difference in kind’ between the claim limitation and the accused product.”) When cases talk about the claimed equivalent being the “opposite” or “antithesis”¹ of the claimed limitation, it looks a lot like the cases are saying that the differences are too substantial to be overcome by the “function-way-result” test. *Cf. Planet Bingo, LLC v. GameTech Int’l, Inc.*, 472 F.3d 1338, 1345 (Fed. Cir. 2006) (“[T]he patents contain a distinct limitation, which was part of the bargain when the patent[s] issued. This court cannot overlook that limitation or expand the doctrine of equivalents beyond its purpose to allow recapture of subject matter excluded by a deliberate and foreseeable claim drafting decision.”).

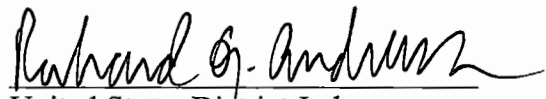
The Magistrate Judge applied the “doctrine of vitiation” using the “legal sufficiency” strand of the analysis. Under Plaintiff’s doctrine of equivalents theory, the accused product met the “defined physical space” limitation by virtue of its “hardcoded coordinates,” or “relative, abstract space.” (D.I. 409 at 14). The Magistrate Judge concluded that the invention claimed a system that could be adapted to the real world, and Plaintiff’s doctrine of equivalents theory would result in the invention including a system requiring the real world to adapt to it. In other words, the “defined physical space” of the claims was the “relative, abstract space” of the accused product. (*Id.*). The difference between the claims’ defined physical space (known

¹ *Planet Bingo, LLC v. GameTech International, Inc.*, 472 F.3d 1338, 1345 (Fed. Cir. 2006).

“prior” to set up of the system) and the accused product’s hardcoded values (meaning the physical space is only known “after” the set up of the system) is too great to be covered by the doctrine of equivalents. *See Planet Bingo*, 472 F.3d at 1345 (finding that, in the context of doctrine of equivalents, the difference between “before” and “after” is “marked”). The accused product operates in essentially the opposite fashion of that described in the claims. This is a legal determination, not a factual determination, and is therefore appropriately decided on summary judgment.

Thus, the Reports and Recommendations (D.I. 409, 411) are **ADOPTED**. Defendants’ Motion for Summary Judgment of Noninfringement (D.I. 332) is **GRANTED** as to fourteen of the fifteen asserted claims. (*See* D.I. 411 at 1 & 2). The Motion for Partial Summary Judgment of Invalidity (D.I. 330) is **DENIED**. The remaining claim is claim 11 of the ’997 patent; however, the parties recently stipulated to dismissal of all claims and counterclaims relating to that patent. (D.I. 421). Thus, the pending Daubert motions (D.I. 326, 337) are **DISMISSED AS MOOT**. A separate order will be entered.

IT IS SO ORDERED this 22 day of September 2015.


United States District Judge